



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

# AMERICAN JOURNAL OF BOTANY

---

VOL. VII

OCTOBER, 1920

No. 8

---

BYRON DAVID HALSTED<sup>1</sup>

*June 7, 1852–August 28, 1918*

F. L. STEVENS, L. H. PAMMEL, AND MEL T. COOK

"I loved Byron for the genuineness of his religious faith, for the simplicity and beauty of his relationship to his fellows, for his ardent desire for service to the world and catholic tolerant spirit exercised toward those who differed from him in faith and thought." This appreciation of Dr. Halsted by an intimate friend will find response in the hearts of all who knew him. However brilliant the achievements of the individual from the world viewpoint, whether in finance, art, literature, or science, it is to the personality, the characteristics, traits, inclinations, and moralities, that we turn in making the ultimate estimate of the man. Dr. Halsted's genial nature, generosity, patriotism, and broad interest in art, music, literature, and athletics, as well as his scientific attainments, are the attributes that claim our homage.

He was one of the few of America's eminent pioneers in plant pathology, the first graduate student to take work under Dr. W. G. Farlow, the first to take the doctorate in cryptogamic botany at Harvard. He taught plant pathology at Ames when the subject was in its infancy in America, and there also he began a series of publications on plant pathology. Indefatigable and full of enthusiasm as a worker and keen as an investigator, a bibliography of his titles would number approximately four hundred, with contributions chiefly to plant pathology and plant breeding.

Dr. Halsted entered Michigan Agricultural College in 1867 and was graduated in 1871. He entered Harvard University in 1874 and received the degree of Doctor of Science in 1878 with a thesis on the "Classification and Description of the American Species of Characeae." He was managing editor of the *American Agriculturist* for five years, then went to the chair of botany of the Iowa Agricultural College, which position he held from 1885 to 1889, when he was elected to the professorship of botany at Rutgers College and the position of botanist of the New Jersey Agricultural College Experiment Station. In both institutions he endeared himself to students and faculty and laid broad, enduring foundations for botanical departments.

<sup>1</sup> Prepared at the request of the council of the Botanical Society of America.

[The **Journal** for July (7: 261–304) was issued August 6, 1920.]



Yours sincerely  
Byron D. Halsted

Many students owe their later successes in life and their contributions to the world's welfare to inspiration and ambition derived through contact with Dr. Halsted in these two colleges.

His interest centered primarily in plant pathology, and pioneer work was carried on regarding many fruit and truck crop diseases. He also gave special attention to the diseases of ornamental plants, a field in which his work probably overshadows that of all other contributors. While in New Jersey failing eyesight and health forbade further microscopic work and his activities were turned to field work in plant breeding.

Dr. Halsted was a member of Phi Beta Kappa. He also won the silver medal of the Massachusetts Horticultural Society and was a fellow of the American Association for the Advancement of Science. He served in an official capacity many of the leading national scientific societies of the country. He was elected president of the New Jersey Microscopical Society, second vice-president of the Iowa Academy of Science in 1888-1889, secretary of Section F of the American Association for the Advancement of Science in 1892, secretary of the Society for the Promotion of Agricultural Science in 1892, and its president from 1897 to 1899, and was president of the Botanical Society of America in 1900-1901. He was affiliated with other national societies—the Society for Plant Morphology and Physiology, the Society of Horticultural Science, the American Society of Naturalists, and was associate editor of the *Bulletin of the Torrey Botanical Club* (1890-1893) and a contributor to the *Systematic Flora of North America*.

Dr. Halsted was born at Venice, New York, of Quaker parentage June 7, 1852; was thrice married and leaves three children. He died at New Brunswick, New Jersey, the scene of his activities of nearly thirty years, on August 28, 1918.

#### PUBLICATIONS

The following is a list, as nearly complete as possible, of the scientific publications of Dr. Halsted, not including numerous abstracts and reviews of the work of other writers.

1877

Reproduction in fresh-water algae. *Amer. Nat.* **11**: 513-524.

1878

Notes upon vernation. *Proc. Boston Soc. Nat. Hist.* **19**: 215, 216.

1881

Classification and description of the American species of Characeae. *Proc. Boston Soc. Nat. Hist.* **20**: 169-190.

Barn plans and outbuildings. 235 pp. New York.

1883

Agricultural education for the young. *Proc. Soc. Prom. Agr. Sci.*, 2d Ann. Meeting (1881): 54-56.

Notes on sassafras-leaves. *Science* **2**: 491-493.

A strange sassafras-leaf. *Science* **2**: 684, 685.

A combination walnut. *Science* **2**: 761, 762.

1884

- Little things of great importance. Home Science. May, 1884, pp. 18-23.  
 Retrograde metamorphosis of a strawberry-flower. Science 3: 302.  
 Conditions of growth of the wheat-rust. Science 3: 457, 458.  
 Mildew and grape rot. Proc. N. J. State Hort. Soc., 9th Ann. Meeting (1884): 74-76.

1885

- A tomato disease. Proc. Soc. Prom. Agr. Sci., 5th Ann. Meeting (1884): 42-44.

1886

- A new Iowa Aecidium. Journ. Mycol. 2: 52.  
 Gymnosporangium macropus on *Pirus coronaria*. Bot. Gaz. 11: 190, 191.  
 An interesting Peronospora. Bot. Gaz. 11: 272.  
 A pleasing experiment in laboratory practice. Bot. Gaz. 11: 339, 340.  
 Strange pollen-tubes of Lobelia. Amer. Nat. 20: 644, 645.

1887

- Pollen-tubes of Lobelia. Amer. Nat. 21: 75, 76.  
 Bulletin of the Iowa Agricultural College, from the Botanical Department. 66 pp.  
 A plant heliostat. Bot. Gaz. 12: 82, 83.  
 "Crazy" pollen of the bell-wort. Bot. Gaz. 12: 139, 140.  
 Dry weather foliage of the compass plant. Bot. Gaz. 12: 161, 162.  
 Three nuclei in pollen grains. Bot. Gaz. 12: 285-288.  
 A new Uromyces. Journ. Mycol. 3: 138.  
 Dioecism in *Anemone acutiloba*, Lawson. Bull. Torrey Club 14: 119-121.  
 Germination of cucumber seed. Gard. Chron., 3d ser. 2: 466.  
 A hint as to nitrogen appropriation in clovers. Proc. Soc. Prom. Agr. Sci., 8th Ann. Meeting (1887): 41-44.  
 The peg in germinating cucurbitaceous plants. Proc. Soc. Prom. Agr. Sci., 8th Ann. Meeting (1887): 45-48.  
 The powdery mildew of the gooseberry. *Sphaerotheca mors-uvae*, B. and C. Rept. U. S. Comm. Agr. 1887: 373-380.

1888

- Bulletin from the Botanical Department of the State Agricultural College, Ames, Iowa. 118 pp.  
 (With J. B. Ellis) New Iowa fungi. Journ. Mycol. 4: 7, 8.  
 Iowa Peronosporae and a dry season. Bot. Gaz. 13: 52-59.  
 Pollen germination and pollen measurement (Abstr.). Bot. Gaz. 13: 238.  
 Trigger-hairs of the thistle flower. Bull. Torrey Club 15: 82-84.  
 Abnormal ash leaves. Bull. Torrey Club 15: 212, 213.  
 Fertilization of flowers. Proc. N. J. State Hort. Soc., 13th Ann. Meeting (1887): 101-108.  
 Apple rusts. Rept. U. S. Comm. Agr. 1888: 370-381.  
 Potato flowers and fruit. Proc. Soc. Prom. Agr. Sci., 9th Ann. Meeting (1888): 33, 34.  
 The tomato flower and fruit. Proc. Soc. Prom. Agr. Sci., 9th Ann. Meeting (1888): 35, 36.

1889

- Peronosporae and rain-fall. Journ. Mycol. 5: 6-11.  
 An interesting Uromyces. Journ. Mycol. 5: 11.  
 Notes upon *Sphaerotheca phytoptophila*, Kell. and Swingle. Journ. Mycol. 5: 85, 86.  
 Another Sphaerotheca upon Phytotpus distortions. Journ. Mycol. 5: 134.  
 Some notes upon economic Peronosporae for 1889 in New Jersey. Journ. Mycol. 5: 201-203.  
 An investigation of apple twigs. Iowa Agr. Exp. Sta. Bull. 4: 104-132.

- Pollen germination and pollen measurements (Abstr.). Proc. Amer. Assn. Adv. Sci. (1888): 288.
- Our worst weeds. Bot. Gaz. 14: 69-71.
- A modification of the versatile anther. Bot. Gaz. 14: 107, 108.
- Pollen mother-cells. Bot. Gaz. 14: 109.
- Dicentra stigmas and stamens. Bot. Gaz. 14: 129, 130.
- Sensitive stamens in Compositae. Bot. Gaz. 14: 151, 152.
- Peronospora upon cucumbers. Bot. Gaz. 14: 152, 153.
- Observations upon barberry flowers. Bot. Gaz. 14: 201.
- Notes upon Lithospermum. Bot. Gaz. 14: 202, 203.
- Pickrel weed pollen. Bot. Gaz. 14: 255-257.
- Notes upon stamens of Solanaceae (Abstr.). Bot. Gaz. 14: 260.
- Reserve food substances in twigs (Abstr.). Bot. Gaz. 14: 260.
- The station botanists at Washington. Bot. Gaz. 14: 305-309.
- The germination of pollen. Bull. Torrey Club 16: 130, 131.
- Observations upon pollen measurements. Bull. Torrey Club 16: 135, 136.
- What are the worst weeds of New Jersey? N. J. Agr. Coll. Exp. Sta. Bull. 52. 15 pp.
- Some fungus diseases of the cranberry. N. J. Agr. Coll. Exp. Sta. Bull. 64. 40 pp.
- Pollen versus rain. Proposed experiments illustrating the influences of rainfall at blooming time upon subsequent fruitfulness. N. J. Agr. Coll. Exp. Sta. Spec. Bull. C. 4 pp.
- The doubling of flowers. Proc. N. J. State Hort. Soc., 14th Ann. Meeting (1888): 74-84.
- The cranberry gall fungus. Proc. Soc. Prom. Agr. Sci., 10th Ann. Meeting (1889): 39-43.
- Our worst weeds: A scale of points. Proc. Soc. Prom. Agr. Sci., 10th Ann. Meeting (1889): 43-49.
- The potato rot. N. J. Agr. Coll. Exp. Sta. Spec. Bull. G. 4 pp.
- The cranberry scald. N. J. Agr. Coll. Exp. Sta. Spec. Bull. H. 3 pp.
- The sweet potato rot. N. J. Agr. Coll. Exp. Sta. Spec. Bull. J. 3 pp.

## 1890

- Treatment of cranberry scald and cranberry gall-fungus. Journ. Mycol. 6: 18, 19.
- (With J. B. Ellis) New fungi. Journ. Mycol. 6: 33-35.
- Once more about the weeds. Bot. Gaz. 15: 23, 24.
- Notes upon stamens of Solanaceae. Bot. Gaz. 15: 103-106.
- Peronospora rubi* Rabenh. in America. Bot. Gaz. 15: 179.
- Collections of weeds. Bot. Gaz. 15: 312.
- Notes upon Peronosporae for 1890. Bot. Gaz. 15: 320-324.
- Station botanists at Champaign. Bot. Gaz. 15: 334-339.
- Clipping currant clusters. Garden and Forest 3: 19.
- Worms in violet roots. Garden and Forest 3: 69.
- Hollyhock diseases. Garden and Forest 3: 158.
- Why not legislate against the black knot? Garden and Forest 3: 194.
- Anthraxnose or blight of the oak. Garden and Forest 3: 295, 296.
- Legislation against fungous diseases in New Jersey. Garden and Forest 3: 307, 308.
- Nematodes and the oat crop. Garden and Forest 3: 319, 320.
- Anthraxnose on the maple. Garden and Forest 3: 325.
- The egg-plant blight. Garden and Forest 3: 457.
- Botanical work at the stations. Garden and Forest 3: 463, 464.
- The celery blight. Garden and Forest 3: 481.
- Effect of forest-management on orchards. Garden and Forest 3: 487, 488.
- Nematodes in the chrysanthemum. Garden and Forest 3: 499, 500.
- Spraying against pear blight. Garden and Forest 3: 505.
- A dangerous enemy to the radish. Garden and Forest 3: 541, 542.
- The rot among late potatoes. Garden and Forest 3: 551, 552.

- Nematodes again. Garden and Forest 3: 565.  
 The root rot of salsify. Garden and Forest 3: 576.  
 The cranberry scald. Garden and Forest 3: 583, 584.  
 A new white smut. Bull. Torrey Club 17: 95-97.  
 Note upon *Ailanthus*. Bull. Torrey Club 17: 102, 103.  
 White huckleberries. Bull. Torrey Club 17: 104, 105.  
 Notes upon *Zygodesmus* and its new species. Bull. Torrey Club 17: 151, 152.  
 A possible natural hybrid. Bull. Torrey Club 17: 176, 177.  
 Reserve food-materials in buds and surrounding parts. Mem. Torrey Club 2: 1-26.  
 Some reasons for varieties not soon wearing out. Amer. Nat. 24: 577-581.  
 Report of the botanist. Rept. N. J. Agr. Exp. Stations (1889): 221-239.  
 Fungi injurious to horticulture. Proc. N. J. State Hort. Soc., 15th Ann. Meeting (1889): 149-162.  
 The rots of the sweet potatoes. Proc. Soc. Prom. Agr. Sci., 11th Ann. Meeting (1890): 27, 28.  
 Reserve food substances in twigs (Abstr.). Proc. Amer. Assn. Adv. Sci. (1889): 281, 282.  
 Some fungous diseases of the spinach. N. J. Agr. Coll. Exp. Sta. Bull. 70. 15 pp.  
 Some fungous diseases of the sweet potato. N. J. Agr. Coll. Exp. Sta. Bull. 76. 32 pp.  
 Observations upon the peach for 1890. N. J. Agr. Coll. Exp. Sta. Spec. Bull. L. 3 pp.

## 1891

- The mignonette disease. Garden and Forest 4: 33.  
 Nematodes attacking *Bouvardias*. Garden and Forest 4: 57.  
 More nematodes. Garden and Forest 4: 153.  
 The hydrangea blight. Garden and Forest 4: 177.  
 Mildew on sweet alyssum and radish. Garden and Forest 4: 189.  
 Decay spots upon leaves. Garden and Forest 4: 201, 202.  
 Southern Mississippi floral notes. Garden and Forest 4: 250, 251.  
 An abundant rust. Garden and Forest 4: 262.  
 An orchid anthracnose. Garden and Forest 4: 309.  
 Are fungicides abused? Garden and Forest 4: 359.  
 Pelargonium blight. Garden and Forest 4: 453.  
 Nematodes in *Zinnias*. Garden and Forest 4: 453.  
 Hollyhock diseases. Garden and Forest 4: 477.  
 The cranberry scald. Garden and Forest 4: 525, 526.  
 Damping off. Garden and Forest 4: 549.  
 A chrysanthemum blight. Garden and Forest 4: 560.  
 Bacterial disease of celery. Garden and Forest 4: 584.  
 Rust of carnations. Garden and Forest 4: 596.  
 Gall-worms injuring the roses. Garden and Forest 4: 608.  
 A new anthracnose of peppers. Bull. Torrey Club 18: 14, 15.  
 (With D. G. Fairchild) Influence of moisture upon dehiscent fruits. Bull. Torrey Club 18: 81-85.  
 A strange thing in peppers. Bull. Torrey Club 18: 151.  
 The giant sundew heliotropic. Bull. Torrey Club 18: 212, 213.  
 Intra-carpillary pistils and other floral derangements. Bull. Torrey Club 18: 246-249.  
 Notes upon *Epigaea repens*. Bull. Torrey Club 18: 249, 250.  
 A new egg-plant disease. Bull. Torrey Club 18: 302, 303.  
 A double-headed *Rudbeckia*. Bull. Torrey Club 18: 304.  
 What the station botanists are doing. Bot. Gaz. 16: 288-291.  
 Bacteria of the melons. Bot. Gaz. 16: 303-305.  
 Notes upon *Peronosporae* for 1891. Bot. Gaz. 16: 338-340.  
 Papers on fungi injurious to fruits and fungi injurious to garden crops, read before the Ohio State Horticultural Society, December, 1890.

- Botany at the Washington meetings. Amer. Nat. **25**: 914-916.  
 The migration of weeds. Proc. Amer. Assn. Adv. Sci. (1890): 304-312.  
 The anthracnoses and their relations to horticulture. Proc. N. J. State Hort. Soc., 16th Ann. Meeting (1890): 56-66.  
 Field experiments with soil and black rots of sweet potatoes. N. J. Agr. Coll. Exp. Sta. Spec. Bull. M. 19 pp.  
 Destroy the black knot of plum and cherry trees. An appeal. N. J. Agr. Coll. Exp. Sta. Bull. 78. 14 pp.  
 Report of the botanical department. Rept. N. J. Agr. Exp. Stations (1890): 323-453.

## 1892

- Notes upon *Monilia fructigena*, Pers. and spore germination. Bull. Torrey Club **19**: 5-7.  
 Sweet potato blossoms. Bull. Torrey Club **19**: 22.  
 Eastern and western weeds. Bull. Torrey Club **19**: 43-46.  
 Parasitic fungi as related to variegated plants. Bull. Torrey Club **19**: 84-88.  
 Weeds at the World's Columbian Exposition. Bull. Torrey Club **19**: 131.  
 A century of American weeds. Their root systems tabulated. Bull. Torrey Club **19**: 141-147.  
 Anthracnose in bean-seeds. Garden and Forest **5**: 18.  
 Alternanthera leaf-blight. Garden and Forest **5**: 56, 57.  
 Fungous troubles in the cutting beds. Garden and Forest **5**: 91, 92.  
 Petunia blight. Garden and Forest **5**: 141.  
 "Falling" of egg-plant seedlings. Garden and Forest **5**: 164.  
 Foliar nematodes. Garden and Forest **5**: 234.  
 Plum-flower blight. Garden and Forest **5**: 248.  
 Blights of variegated Pelargoniums. Garden and Forest **5**: 353.  
 Southern tomato blight at the North. Garden and Forest **5**: 379-381.  
 Fungous and other rose troubles. Garden and Forest **5**: 406, 407.  
 Tomato diseases. Garden and Forest **5**: 465.  
 Decay of quince fruit. Garden and Forest **5**: 477.  
 Anthracnose of the pear. Garden and Forest **5**: 501.  
 Diseases of the carnation. Garden and Forest **5**: 594, 595.  
 Bacterial disease of beans. Garden and Forest **5**: 620.  
 Some fungi common to wild and cultivated plants. Bot. Gaz. **17**: 113-118.  
 Cedar trees and apple rust. Amer. Monthly Micr. Journ. **13**: 122.  
 The influence upon crops of neighboring wild plants. Proc. N. J. State Hort. Soc., 17th Ann. Meeting (1891): 110-122.  
 Notes upon bacteria of cucurbits (Abstr.). Proc. Amer. Assn. Adv. Sci. (1891): 315, 316.  
 A new Nectria (Abstr.). Proc. Amer. Assn. Adv. Sci. (1891): 316.  
 Notes upon an anthracnose (Abstr.). Proc. Amer. Assn. Adv. Sci. (1891): 316, 317.  
 A section of botany in the American Association. Bot. Gaz. **17**: 25, 26. Also in Science **19**: 81.  
 Check list of American weeds, in the order of Patterson's list, exclusive of sub-tropical Florida. New Brunswick, N. J.  
 Fungi injurious to weed seedlings. Proc. Soc. Prom. Agr. Sci., 13th Ann. Meeting (1892): 145-148.  
 Report of the botanical department. Rept. N. J. Agr. Exp. Stations (1891): 235-340.  
 (With J. B. Smith) Spraying for insect and fungous pests of the orchard and vineyard. N. J. Agr. Coll. Exp. Sta. Bull. 86. 20 pp.  
 Some fungous diseases of the quince fruit. N. J. Agr. Coll. Exp. Sta. Bull. 91. 16 pp.  
 Some fungous diseases of the celery. N. J. Agr. Coll. Exp. Sta. Spec. Bull. Q. 12 pp.  
 The southern tomato blight. Miss. Agr. Exp. Sta. Bull. 19. 12 pp.



1893

- Quince diseases (Abstr.). Bot. Gaz. 18: 25, 26.  
 New Jersey Peronosporae (Abstr.). Bot. Gaz. 18: 26.  
 Weed seeds (Abstr.). Bot. Gaz. 18: 26.  
 A new form of Exobasidium (Abstr.). Bot. Gaz. 18: 348.  
 A century of American weed seeds. Bull. Torrey Club 20: 51-55.  
 A study of solanaceous anthracnoses. Bull. Torrey Club 20: 109-112.  
 Identity of anthracnose of the bean and watermelon. Bull. Torrey Club 20: 246-250.  
 Some new weed fungi. Bull. Torrey Club 20: 250-252.  
 Dropsical Pelargoniums. Bull. Torrey Club 20: 391-393.  
 Notes upon a new Exobasidium. Bull. Torrey Club 20: 437-440.  
 The Solandi process of sun printing. Bull. Torrey Club 20: 485-488.  
 Heliotropism of the common mallow. Bull. Torrey Club 20: 489, 490.  
 Fatal club-root of turnips. Garden and Forest 6: 78, 79.  
 A serious filbert disease. Garden and Forest 6: 134.  
 An observation on fruit decays. Garden and Forest 6: 342.  
 The rust of mountain ash. Garden and Forest 6: 508.  
 Fungi parasitic indicate kinship. Science 22: 203.  
 Blight of ornamental ferns. Amer. Florist 9: 766.  
 Pleospora of *Tropaeolum majus* (Abstr.). Proc. Amer. Assn. Adv. Sci. (1892): 221.  
 Secondary spores of anthracnoses (Abstr.). Proc. Amer. Assn. Adv. Sci. (1892): 221.  
 A bacterium of Phaseolus (Abstr.). Proc. Amer. Assn. Adv. Sci. (1892): 221, 222.  
 Fruit decay. Proc. N. J. State Hort. Soc., 18th Ann. Meeting (1892): 131-136.  
 Potatoes by the direct method. Proc. Soc. Prom. Agr. Sci., 14th Ann. Meeting (1893): 64-68.  
 Report of the botanical department. Rept. N. J. Agr. Exp. Stations (1892): 275-386.  
 Club-root of cabbage and its allies. N. J. Agr. Coll. Exp. Sta. Bull. 98. 16 pp.

1894

- (With D. G. Fairchild) Sweet-potato black rot (*Ceratocystis fimbriata*, Ell. & Hals.). Journ. Mycol. 7: 1-11.  
 Blight of garden pinks. Amer. Florist 10: 5, 6.  
 Begonia diseases. Amer. Florist 10: 117.  
 Chrysanthemum leaf spot. Amer. Florist 10: 263.  
 The mint rust upon the variegated balm. Bull. Torrey Club 21: 40, 41.  
 Club-root in common weeds. Bull. Torrey Club 21: 76-78.  
 Shrinkage of leaves in drying. Bull. Torrey Club 21: 129-131.  
 Pistillodia of Podophyllum stamen. Bull. Torrey Club 21: 269.  
 Peculiar "range" in an autoecious Uromyces. Bull. Torrey Club 21: 311-313.  
 Other poisonous plants. Bot. Gaz. 19: 200.  
 Weather versus injurious fungi. Proc. Soc. Prom. Agr. Sci., 15th Ann. Meeting (1894) Agr. Sci. 8: 292-297.  
 Sunshine through the woods. Pop. Sci. Monthly 45: 313-322.  
 A serious blight of Cosmos. Garden and Forest 7: 464, 465.  
 The shrinkage of leaves in drying (Abstr.). Proc. Amer. Assn. Adv. Sci. (1893): 257, 258.  
 The Solandi printing applied to botanical work (Abstr.). Proc. Amer. Assn. Adv. Sci. (1893): 258.  
 Bacteria in some of their relations to crop growing. Proc. N. J. State Hort. Soc., 19th Ann. Meeting (1894): 186-196.  
 Report of the botanist. Rept. N. J. Agr. Exp. Stations (1893): 289-436.

1895

- The cherry fruit mold. Garden and Forest 8: 137, 138.  
 Strawberry leaf curl. Garden and Forest 8: 148.

- Aerial roots of carnations. Garden and Forest 8: 158, 159.  
 Notes upon poisonous plants. Garden and Forest 8: 172.  
 Irrigation in New Jersey. Garden and Forest 8: 518.  
 Notes on agriculture (I.). Science, n. ser. 1: 376-379.  
 Notes upon agriculture (II.). Science, n. ser. 1: 509, 510.  
 Notes on agriculture (III.). Science, n. ser. 1: 680-682.  
 Notes on agriculture (IV.). Science, n. ser. 2: 12.  
 Notes on agriculture (V.). Science, n. ser. 2: 68.  
 How to distinguish fungous diseases of carnations. Florist's Exchange 7: 293, 294.  
 Notes upon *Chalara paradoxa* (Abstr.). Proc. Amer. Assn. Adv. Sci. (1894): 293.  
 Notes upon a root rot of beets (Abstr.). Proc. Amer. Assn. Adv. Sci. (1894): 293.  
 Blights and their remedies. Proc. N. J. State Hort. Soc., 20th Ann. Meeting (1895): 100-105.  
 Report of the botanist. Rept. N. J. Agr. Exp. Stations (1894): 275-419.  
 Some fungous diseases of beets. N. J. Agr. Coll. Exp. Sta. Bull. 107. 13 pp.  
 (With J. A. Kelsey) Field experiments with fungicides. (Turnips, cabbage, tomatoes, potatoes and beans.) N. J. Agr. Coll. Exp. Sta. Bull. 108. 32 pp.  
 Field experiments with potatoes. N. J. Agr. Coll. Exp. Sta. Bull. 112. 20 pp.  
 (With J. A. Kelsey) Irrigation of garden crops. N. J. Agr. Coll. Exp. Sta. Bull. 115. 16 pp.
- 1896
- Forest fungi. Forester 2: 25.  
 The black knot of the wild cherry. Forester 2: 39, 40.  
 Notes on agriculture and horticulture (IV.). Science, n. ser. 3: 398, 399.  
 Notes upon agriculture and horticulture. Science, n. ser. 3: 588, 589.  
 Notes upon agriculture and horticulture. Science, n. ser. 3: 698, 699.  
 Notes on agriculture and horticulture. Science, n. ser. 3: 767.  
 Notes upon agriculture and horticulture. Science, n. ser. 3: 834-836.  
*Reseda lutea* moving inland. Bull. Torrey Club 23: 252.  
 Dodder on garden vegetables. Garden and Forest 9: 365, 366.  
 An outbreak of asparagus rust. Garden and Forest 9: 394, 395.  
 Fungous diseases of ornamental plants. Trans. Mass. Hort. Soc. (1895): 22-33.  
 Plant enemies to the horticulturist. Proc. N. J. State Hort. Soc., 21st Ann. Meeting (1896): 89-92.  
 Report of the botanist. Rept. N. J. Agr. Exp. Stations (1895): 249-361.
- 1897
- A plant catapult. Bull. Torrey Club 24: 48-50.  
 Observations upon a clearing in July. Bull. Torrey Club 24: 407, 408.  
 Mycological notes. Bull. Torrey Club 24: 505-510.  
 The asparagus rust again. Garden and Forest 10: 236.  
 The sycamore blight. Garden and Forest 10: 257, 258.  
 Dodder in clover. Garden and Forest 10: 278.  
 A renewed outbreak of the asparagus rust. Garden and Forest 10: 335.  
 Rusty appearance of elm leaves. Garden and Forest 10: 417, 418.  
 Plum-fruit rot. Garden and Forest 10: 436, 437.  
 Some fungous diseases of celery. Amer. Gardening 18: 743.  
 Root galls of cultivated plants. Florist's Exchange 9: 754, 755. Also in Amer. Florist 13: 74, 75; and New Eng. Florist 3: 291, 292.  
 Forest fungi. Anthracnose of poplars. Proc. Amer. Forest Assn. 11: 176-178.  
 Notes upon bean and pea tubercles. Proc. Soc. Prom. Agr. Sci., 18th Ann. Meeting (1897): 77-81.  
 New fungi. Proc. N. J. State Hort. Soc., 22nd Ann. Meeting (1897): 40-61.  
 Report of the botanist. Rept. N. J. Agr. Exp. Stations (1896): 289-429.

Field experiments with potatoes for 1896. N. J. Agr. Exp. Stations Bull. 120. 19 pp.  
The fungous foes of the farmer. Pa. Dept. Agr. Bull. 28. 19 pp.

## 1898

- "Sporting" in peaches. Asa Gray Bull. 6: 21-25.  
Notes upon the growth of stems after being cut. Plant World 1: 74, 75.  
Further notes upon the growth of stems after being cut. Plant World 2: 27-29.  
Mycological notes. Bull. Torrey Club 25: 158-162.  
Mycological notes.—III. Bull. Torrey Club 25: 329-335.  
Two phaenogamous parasites of the red clover. Bull. Torrey Club 25: 395-397.  
Starch distribution as affected by fungi. Bull. Torrey Club 25: 573-579.  
Exposure and fungous diseases. Bull. Torrey Club 25: 622-625.  
Observations upon the newer botany. Bot. Gaz. 26: 259-264. Also in Plant World 2: 56-58. 1899.  
Notes from the plant hospital. Experiments with cabbages. Amer. Gardening 19: 373.  
Notes from the plant hospital. Experiments in infecting soil with the potato scab fungus. Amer. Gardening 19: 435, 436.  
Notes from the plant hospital. Experiments with tomatoes. Amer. Gardening 19: 468.  
Notes from the plant hospital. Experiments with egg-plants. Amer. Gardening 19: 531.  
The violet disease. Amer. Florist 13: 310.  
Black spot of rose leaves. Amer. Florist 13: 685, 686.  
The lily disease. Amer. Florist 13: 882.  
Rose leaf blight. Amer. Florist 13: 951.  
The black speck of the rose. Amer. Florist 13: 1170.  
The carnation fairy ring fungus. Amer. Florist 13: 1256.  
The anthracnose of Ficus leaves. Amer. Florist 13: 1287.  
Fungous diseases of hollyhocks. Amer. Florist 13: 1342, 1343.  
A palm-leaf blight. Amer. Florist 13: 1426.  
Starch distribution as affected by fungi (Abstr.). Proc. Amer. Assn. Adv. Sci. (1898): 408, 409.  
Half-shade and vegetation (Abstr.). Proc. Amer. Assn. Adv. Sci. (1898): 415.  
Influence of wet weather upon parasitic fungi (Abstr.). Proc. Amer. Assn. Adv. Sci. (1898): 416.  
President's address. The Society's progress. Proc. Soc. Prom. Agr. Sci., 19th Ann. Meeting (1898): 17-49.  
A consideration of forcing in peaches. Proc. N. J. State Hort. Soc., 23rd Ann. Meeting (1898): 117-140.  
Report of the botanist. Rept. N. J. Agr. Exp. Stations (1897): 263-394.  
The asparagus rust; its treatment and natural enemies. N. J. Agr. Exp. Stations Bull. 129. 20 pp.  
The fungous foes of the farmer. Ann. Rept. Pa. Dept. Agr. (1897): 678-692.

## 1899

- Mycological notes IV. Bull. Torrey Club 26: 12-20.  
Mycological notes V. Bull. Torrey Club 26: 72-78.  
The influence of wet weather upon parasitic fungi. Bull. Torrey Club 26: 381-389.  
A new genus of powdery mildews—Erysiphopsis. Bull. Torrey Club 26: 594, 595.  
Relative rate of growth of peas and beans. Asa Gray Bull. 7: 38.  
Partial sterility of fertile Woodwardia fronds. Plant World 2: 55, 56.  
The fairy ring fungus an indirect fertilizer to grass. Plant World 2: 76, 77.  
An experiment with sex in hemp plants. Plant World 2: 110.  
What are the habitats of *Scutellaria parvula* of Michaux? Plant World 2: 128.  
Peculiarities of purslane. Plant World 2: 165, 166.  
The new field botany. Pop. Sci. Monthly 56: 98-105.

- Root tubercles upon spring and autumn grown legumes (Abstr.). Amer. Nat. **33**: 301.  
 Poisonous toadstools. Amer. Gardening **20**: 380, 381.  
 Root tubercles and nitrogen appropriation. N. J. State Board Agr. (1898): 105-116.  
 Field experiments with "nitragin" and other germ fertilizers (Abstr.). Proc. Amer. Assn. Adv. Sci. (1899): 291, 292.  
 President's address. Experience notes upon plot experiments. Proc. Soc. Prom. Agr. Sci., 20th Ann. Meeting (1899): 19-29.  
 Results of observations and experiments upon fruits and vegetables. Proc. N. J. State Hort. Soc., 24th Ann. Meeting (1899): 72-87.  
 Report of the botanist. Rept. N. J. Agr. Exp. Stations (1898): 291-370.  
 The poisonous plants of New Jersey. N. J. Agr. Exp. Stations Bull. **135**. 28 pp.  
 An outbreak of chrysanthemum rust. N. J. Agr. Exp. Stations Circular.  
 The fungous foes of fruits. Ann. Rept. Pa. Dept. Agr. (1898): 482-501.

## 1900

- Coloration of leaf for seed distribution. Plant World **3**: 22.  
 Judging by the fruits. Plant World **3**: 116-122.  
 American and English weeds compared. Plant World **3**: 171-173.  
 Notes upon grape mildew (*Plasmopara viticola*, B. & C.). Asa Gray Bull. **8**: 78, 79.  
 Rusts of horticultural plants. Florist's Exchange **12**: 60.  
 Eel worm in roses. Florist's Exchange **12**: 84, 85.  
 Diseases of the rose. Florist's Exchange **12**: 333, 334. Also in Amer. Florist **15**: 1033-1037.  
 The rusts of florists' plants. Amer. Florist **15**: 1258.  
 Concentric spore spots (Abstr.). Science, n. ser. **12**: 580, 581.  
 A new species-hybrid, salsify (Abstr.). Science, n. ser. **12**: 584.  
 Experience notes upon plot experiments. Science, n. ser. **11**: 726-732.  
 Genuine starch factories. Pop. Sci. Monthly **56**: 716-722.  
 The rusts of horticultural plants. Trans. Mass. Hort. Soc. (1900): 11-29.  
 Seven years of experiments with bush beans. Proc. Soc. Prom. Agr. Sci., 21st Ann. Meeting (1900): 119-129.  
 Concentric spore spots (Abstr.). Proc. Amer. Assn. Adv. Sci. (1900): 276, 277.  
 Notes upon a new species-hybrid of salsify (Abstr.). Proc. Amer. Assn. Adv. Sci. (1900): 284.  
 Four ears of sweet corn. Proc. N. J. State Hort. Soc., 25th Ann. Meeting (1900): 108-114.  
 Report of the botanist. Rept. N. J. Agr. Exp. Stations (1899): 323-419.  
 Live covers for country homes. N. J. Agr. Exp. Stations Bull. **144**. 39 pp.  
 Fungous foes of vegetable fruits. Pa. Dept. Agr. Bull. **59**. 39 pp. Also in Ann. Rept. Pa. Dept. Agr. (1899): 573-605.

## 1901

- The mignonette as class illustration for ascent of sap. Torreya **4**: 56.  
 Diembryony in corn. Torreya **1**: 68, 69.  
 Weeping tomatoes. Torreya **1**: 130, 131.  
 Are the leaves of "simple-leaved Ampelopsis" simple? Torreya **1**: 139-141.  
 Explosive fruits. Torreya **1**: 143, 144.  
 The asparagus rust. Plant World **4**: 88-94.  
 An abnormal mandrake, dandelion and banana. Plant World **4**: 134.  
 The blooming of twining honeysuckles. Plant World **4**: 202-205.  
 Notes upon albinism in sweet corn (Abstr.). Science, n. ser. **13**: 247.  
 Branched broom-rape upon tomato. Rhodora **3**: 295.  
 Plants as water-carriers. Pop. Sci. Monthly **59**: 492-496.  
 Experiments with tomatoes. Proc. Soc. Prom. Agr. Sci., 22nd Ann. Meeting (1901): 58-61.

What our experiment stations have done in originating varieties of plants by crossing, selecting, etc. (Abstr.). Proc. 14th Ann. Convention Assn. Amer. Agr. Colleges and Experiment Stations. U. S. Dept. of Agriculture, Office of Experiment Stations, Bull. 99: 143, 144.

Some results obtained in cross-breeding of plants. Proc. N. J. State Hort. Soc., 26th Ann. Meeting (1901): 144-148.

Report of the botanist. Rept. N. J. Agr. Exp. Stations (1900): 407-476.

Bean diseases and their remedies. N. J. Agr. Exp. Stations Bull. 151. 28 pp.

## 1902

The "tendrils" of the Kentucky coffee-tree. Torrey 2: 5, 6.

On the behavior of mutilated seedlings. Torrey 2: 17-19.

Fungi injurious to forests. Statement of Work done by Pa. Dept. Forestry (1901-1902): 68-86.

Behavior of mutilated seedlings (Abstr.). Science, n. ser. 15: 407, 408.

Hints from my experiment grounds. Proc. N. J. State Hort. Soc., 27th Ann. Meeting (1902): 117-124.

Report of the botanist. Rept. N. J. Agr. Exp. Stations (1901): 385-459.

## 1903

Barn plans and outbuildings. Revised by E. C. Powell. xvi + 385 pp. New York.

(With J. A. Kelsey) Report of the botanist. Rept. N. J. Agr. Exp. Stations (1902): 377-422.

(With J. A. Kelsey) Some of the newer fungicides. N. J. Agr. Exp. Stations Bull. 167. 15 pp.

## 1904

Blighting of blossoms. Amer. Florist 19: 1093.

(With J. A. Kelsey) Report of the botanist. Rept. N. J. Agr. Exp. Stations (1903): 461-554.

(With J. A. Kelsey) Experiments in crossing sweet corn. A new variety: The Voorhees Red. N. J. Agr. Exp. Stations Bull. 170. 22 pp.

Free distribution of experiment station seeds. N. J. Agr. Exp. Stations Bull. 179. 18 pp.

## 1905

(With E. J. Owen and J. K. Shaw) Report of the botanist. Rept. N. J. Agr. Exp. Stations (1904): 449-553.

Seed distribution of 1904 and for 1905. N. J. Agr. Exp. Stations Bull. 191. 19 pp.

## 1906

(With E. J. Owen and J. K. Shaw) Report of the botanist. Rept. N. J. Agr. Exp. Stations (1905): 425-525.

Breeding sweet corn—Co-operative tests. N. J. Agr. Exp. Stations Bull. 192. 30 pp.

## 1907

(With E. J. Owen) Report of the botanist. Rept. N. J. Agr. Exp. Stations (1906): 371-514. Station novelties in truck crops. Further distribution of seeds. N. J. Agr. Exp. Stations Bull. 199. 30 pp.

Forest trees of New Jersey. N. J. Agr. Exp. Stations Bull. 202. 52 pp.

Novelties in vegetable fruits. General trial for 1908. N. J. Agr. Exp. Stations Bull. 209. 24 pp.

## 1908

(With E. J. Owen and N. D. Shore) Report of the botanist. Rept. N. J. Agr. Exp. Stations (1907): 259-386.

Vegetable-fruit seed distribution for 1909. N. J. Exp. Stations Bull. 218. 28 pp.

## 1909

(With E. J. Owen and N. D. Shore) Report of the botanist. Rept. N. J. Agr. Exp. Stations (1908): 181-301.

Fungi of native and shade trees. Rept. N. J. Forest Park Reservation Comm. 4: 101-120.

## 1910

(With E. J. Owen, B. H. A. Groth, and N. D. Shore) Report of the botanical department. Rept. N. J. Agr. Exp. Stations (1909): 269-350.

## 1911

Geometrical figures in plant breeding. Amer. Breed. Mag. 2: 217-220.

(With E. J. Owen, B. H. A. Groth, and Mary Robinson) Report of the botanical department. Rept. N. J. Agr. Exp. Stations (1910): 221-295.

## 1912

Shade-induced uprightness in the seaside spurge. *Torreyia* 12: 262.

(With B. H. A. Groth, E. J. Owen, Mary Robinson, and Mathilde Groth) Report of the botanical department. Rept. N. J. Agr. Exp. Stations (1911): 313-399.

The elongation of the hypocotyl. N. J. Agr. Exp. Stations Bull. 245. 32 pp.

## 1913

(With B. H. A. Groth, E. J. Owen, Mary Robinson, Mathilde Groth, and Marion T. Pleasants) Report of the botanical department. Rept. N. J. Agr. Exp. Stations (1912): 349-417.

## 1914

(With E. J. Owen, B. H. A. Groth, Mathilde Groth, and Marion T. Pleasants) Report of the botanical department. Rept. N. J. Agr. Exp. Stations (1913): 537-629.

## 1915

(With B. H. A. Groth, E. J. Owen, Marion T. Pleasants, and Mathilde Groth) Report of the botanical department. Rept. N. J. Agr. Exp. Stations (1914): 295-338.

## 1916

Tickle-grass tumblers. *Torreyia* 16: 226-228.

(With J. W. Shive and E. J. Owen) Report of the department of botany. Rept. N. J. Agr. Exp. Stations (1915): 261-296.

## 1917

"Peanuts!" *Torreyia* 17: 77-80.

Weight of seeds as related to their number and position in the pod. *Torreyia* 17: 101, 102.

(With E. J. Owen) Influence of position of grains on the cob on the growth of maize seedlings. Journ. Amer. Soc. Agron. 9: 267-274

Degenerate plants. Journ. Hered. 8: 270-276.

(With E. J. Owen) Environment of seeds and crop production. Plant World 20: 294-297.

(With S. A. Waksman) The influence of soil temperature upon seedling corn. Soil Science 3: 393-398.

(With J. W. Shive, E. J. Owen, and O. C. Schultz) Report of the department of botany. Rept. N. J. Agr. Exp. Stations (1916): 433-463.

## 1918

Color in vegetable fruits. Journ. Hered. 9: 18-23.

Reciprocal breeding in tomatoes. Journ. Hered. 9: 169-173.

Abortiveness as related to position in the legume. Proc. Soc. Prom. Agr. Sci., 38th Ann. Meeting (1917): 68-72.

(With E. J. Owen, O. C. Schultz, J. W. Shive, J. R. Neller, M. I. Wolkoff, W. H. Martin, and R. L. Bancroft) Report of the department of botany. Rept. N. J. Agr. Exp. Stations (1917): 371-424.

## 1919

Possible correlations concerning position of seeds in the pod. Bot. Gaz. 67: 243-250.  
Report of department of botany. Rept. N. J. Agr. Exp. Stations (1918): 197-201.

## Date unknown

Rusts, smuts, ergots and rots. Some of the diseases that seriously affect field crops, vegetables and fruit. Remedies that have proved successful.